

CHAPTER 05

Arithmetic Progressions

Parameters of arithmetic progressions:

Finite A.P:

If the number of terms in an A.P is finite, then it is called a finite A.P.

Examples:

- Cash prizes (In Rs.) given by a school to the toppers of classes I to XII are 200, 250, 300, 350, 400, 450,.....750 respectively. It is a finite A.P as it has 12 terms with common difference '50'.
- Heights (in cm) of some students of school standing in a queue in the morning assembly are 147, 148, 149,.....157. It is a finite A.P as it has 10 terms with common difference '1'.

Note:

Each of these arithmetic progressions (Aps) has a last term.

Infinite A.P:

If the number of term in an A.P is infinite, then it is called an infinite A.P.

Examples:

- 100, 70, 40, 10, ... is an infinite A.P as it has infinite number of terms with common difference '-30'.
- -1.0, -1.5, -2.0, -2.5, ... is an infinite A.P as it has infinite number of terms with common difference '0.5'.

Note:

Such A.P's are never ending and do not have a last term.

